

Husson College
Penobscot County
Bangor, Maine
A-551-71-H-A/N (SM)

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**Departmental
Findings of Fact and Order
Air Emission License
After-the Fact**

After review of the air emissions license application, staff investigation reports and other documents in the applicant's file in the Bureau of Air Quality, pursuant to 38 M.R.S.A., Section 344 and Section 590, the Department finds the following facts:

I. REGISTRATION

A. Introduction

Husson College (Husson) of Bangor, Maine has applied after-the-fact to renew their Air Emission License permitting the operation of emission sources associated with their educational facility.

B. Emission Equipment

Husson is authorized to operate the following equipment:

Fuel Burning Equipment

<u>Equipment</u>	<u>Maximum Capacity (MMBtu/hr)</u>	<u>Maximum Firing Rate (gal/hr)</u>	<u>Fuel Type, % sulfur</u>	<u>Stack #</u>
Boiler H-1	10.2	72.9	#2 fuel oil	1
Boiler H-2	10.2	72.9	#2 fuel oil	1
Boiler P-1	8.1	57.9	#2 fuel oil	2
Boiler P-2	8.1	57.9	#2 fuel oil	2
Boiler G-1	14.1	100.7	#2 fuel oil	3
Boiler G-2	14.1	100.7	#2 fuel oil	3
Boiler C-1	2.2	15.7	#2 fuel oil	4
Boiler C-2	2.2	15.7	#2 fuel oil	4
*Peabody Generator	0.48	3.50	Diesel Fuel	5

* The unit is considered to be insignificant per MEDEP Chapter 115 and is listed for inventory purposes only.

C. Application Classification

The previous air emission license for Husson expired on September 29, 2004. A complete application was not submitted on time, therefore Husson is considered to be an existing source applying for an after-the-fact renewal. With the facility-wide fuel limit, the facility is licensed below the major source thresholds and is considered a synthetic minor.

II. BEST PRACTICAL TREATMENT (BPT)

A. Introduction

In order to receive a license the applicant must control emissions from each unit to a level considered by the Department to represent Best Practical Treatment (BPT), as defined in Chapter 100 of the Air Regulations. Separate control requirement categories exist for new and existing equipment as well as for those sources located in designated non-attainment areas.

BPT for new sources and modifications requires a demonstration that emissions are receiving Best Available Control Technology (BACT), as defined in Chapter 100 of the Department's regulations. BACT is a top-down approach to selecting air emission controls considering economic, environmental and energy impacts.

B. Boilers H-1 and H-2

Boilers H-1 and H-2 were installed in 2006 and are each rated at 10.2 MMBtu/hr. These boilers are therefore subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BACT analysis for Boilers H-1 and H-2 is the following:

1. Chapter 106 regulates fuel sulfur content. However, the firing of fuel which meets the criteria in ASTM D396 for #2 fuel oil is more stringent and shall be considered BACT.
2. Chapter 103 regulates PM emission limits for Boilers H-1 and H-2. However the PM emission limit of 0.08 lb/MMBtu is more stringent and shall be considered BACT for these boilers. The PM₁₀ emission limit is derived from the PM limit.
3. NO_x, CO and VOC emission limits are based upon AP-42 data dated 9/98.
4. Visible emissions from boilers H-1 and H-2 shall not exceed 10% opacity on a 6 minute block average, except for no more than one (1), six (6) minute block average in a continuous 3 hour period.

C. Boilers P-1, P-2, G-1, G-2, C-1, and C-2

Boilers P-1, P-2, G-1 and G-2 were all installed in 1967 and are rated at 8.1, 8.1, 14.1, and 14.1 MMBtu/hr respectively. Boilers C-1 and C-2 were installed in 2006 and are each rated at 2.2 MMBtu/hr. These boilers are therefore not subject to the New Source Performance Standards (NSPS) Subpart Dc for steam generating units greater than 10 MMBtu/hr manufactured after June 9, 1989.

A summary of the BACT analysis for Boilers P-1, P-2, G-1, G-2, C-1 and C-2 is the following:

1. Chapter 106 regulates fuel sulfur content. However, the firing of fuel which meets the criteria in ASTM D396 for #2 fuel oil is more stringent and shall be considered BACT.
2. Chapter 103 regulates PM emission limits for Boilers P-1, P-2, G-1 and G-2. However, the PM emission limit of 0.08 lb/MMBtu is more stringent and shall be considered BACT for these boilers. The PM₁₀ emission limit is derived from the PM limit.
3. A PM emission factor of 0.08 lb/MMBtu shall be considered BACT for Boilers C-1 and C-2. The PM₁₀ emission limit is derived from the PM limit.
4. NO_x, CO and VOC emission limits are based upon AP-42 data dated 9/98.
5. Visible emissions from boilers P-1, P-2, G-1, G-2, C-1 and C-2 shall each not exceed 10% opacity on a 6 minute block average, except for no more than one (1), six (6) minute block average in a continuous 3 hour period.

D. Annual Emissions and Fuel Use Restrictions

1. Based on the firing of 600,000 gal of #2 fuel oil on a 12 month rolling total, annual emissions shall be:

Total Licensed Annual Emission for the Facility
Tons/year
(used to calculate the annual license fee)

	PM	PM₁₀	SO₂	NO_x	CO	VOC
Boilers	3.36	3.36	21.15	6.00	1.50	0.17
Total TPY	3.36	3.36	21.15	6.00	1.50	0.17

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III.AMBIENT AIR QUALITY ANALYSIS

According to the Maine Regulations Chapter 115, the level of air quality analyses required for a renewal source shall be determined on a case-by case basis. Modeling and monitoring are not required for a renewal if the total emissions of any pollutant released do not exceed the following:

<u>Pollutant</u>	<u>Tons/Year</u>
PM	50
PM ₁₀	25
SO ₂	50
NO _x	100
CO	250

Based on the above total facility emissions, Husson College is below the emissions level required for modeling and monitoring.

ORDER

Based on the above Findings and subject to conditions listed below, the Department concludes that the emissions from this source:

- will receive Best Practical Treatment,
- will not violate applicable emission standards,
- will not violate applicable ambient air quality standards in conjunction with emissions from other sources.

The Department hereby grants Air Emission License A-551-71-H-A/N subject the following conditions:

Severability. The invalidity or unenforceability of any provision, or part thereof, of this License shall not affect the remainder of the provision or any other provisions. This License shall be construed and enforced in all respects as if such invalid or unenforceable provision or part thereof had been omitted.

STANDARD CONDITIONS

- (1) Employees and authorized representatives of the Department shall be allowed access to the licensee's premises during business hours, or any time during which any emissions units are in operation, and at such other times as the Department deems necessary for the purpose of performing tests, collecting samples, conducting inspections, or examining and copying records relating to emissions (38 MRSA §347-C).
- (2) The licensee shall acquire a new or amended air emission license prior to commencing construction of a modification, unless specifically provided for in Chapter 115. [MEDEP Chapter 115]
- (3) Approval to construct shall become invalid if the source has not commenced construction within eighteen (18) months after receipt of such approval or if construction is discontinued for a period of eighteen (18) months or more. The Department may extend this time period upon a satisfactory showing that an extension is justified, but may condition such extension upon a review of either the control technology analysis or the ambient air quality standards analysis, or both. [MEDEP Chapter 115]
- (4) The licensee shall establish and maintain a continuing program of best management practices for suppression of fugitive particulate matter during any period of construction, reconstruction, or operation which may result in fugitive dust, and shall submit a description of the program to the Department upon request. [MEDEP Chapter 115]
- (5) The licensee shall pay the annual air emission license fee to the Department, calculated pursuant to Title 38 M.R.S.A. §353. [MEDEP Chapter 115]
- (6) The license does not convey any property rights of any sort, or any exclusive privilege. [MEDEP Chapter 115]
- (7) The licensee shall maintain and operate all emission units and air pollution systems required by the air emission license in a manner consistent with good air pollution control practice for minimizing emissions. [MEDEP Chapter 115]
- (8) The licensee shall maintain sufficient records to accurately document compliance with emission standards and license conditions and shall maintain such records for a minimum of six (6) years. The records shall be submitted to the Department upon written request. [MEDEP Chapter 115]
- (9) The licensee shall comply with all terms and conditions of the air emission license. The filing of an appeal by the licensee, the notification of planned

changes or anticipated noncompliance by the licensee, or the filing of an application by the licensee for a renewal of a license or amendment shall not stay any condition of the license. [MEDEP Chapter 115]

- (10) The licensee may not use as a defense in an enforcement action that the disruption, cessation, or reduction of licensed operations would have been necessary in order to maintain compliance with the conditions of the air emission license. [MEDEP Chapter 115]
- (11) In accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department, the licensee shall:
- A. perform stack testing to demonstrate compliance with the applicable emission standards under circumstances representative of the facility's normal process and operating conditions:
 - 1. within sixty (60) calendar days of receipt of a notification to test from the Department or EPA, if visible emissions, equipment operating parameters, staff inspection, air monitoring or other cause indicate to the Department that equipment may be operating out of compliance with emission standards or license conditions; or
 - 2. pursuant to any other requirement of this license to perform stack testing.
 - B. install or make provisions to install test ports that meet the criteria of 40 CFR Part 60, Appendix A, and test platforms, if necessary, and other accommodations necessary to allow emission testing; and
 - C. submit a written report to the Department within thirty (30) days from date of test completion.
- [MEDEP Chapter 115]
- (12) If the results of a stack test performed under circumstances representative of the facility's normal process and operating conditions indicate emissions in excess of the applicable standards, then:
- A. within thirty (30) days following receipt of such test results, the licensee shall re-test the non-complying emission source under circumstances representative of the facility's normal process and operating conditions and in accordance with the Department's air emission compliance test protocol and 40 CFR Part 60 or other method approved or required by the Department; and
 - B. the days of violation shall be presumed to include the date of stack test and each and every day of operation thereafter until compliance is demonstrated under normal and representative process and operating conditions, except to the extent that the facility can prove to the satisfaction of the Department that there were intervening days during which no violation occurred or that the violation was not continuing in nature; and
 - C. the licensee may, upon the approval of the Department following the successful demonstration of compliance at alternative load conditions, operate

under such alternative load conditions on an interim basis prior to a demonstration of compliance under normal and representative process and operating conditions.

[MEDEP Chapter 115]

- (13) Notwithstanding any other provisions in the State Implementation Plan approved by the EPA or Section 114(a) of the CAA, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any statute, regulation, or Part 70 license requirement. [MEDEP Chapter 115]
- (14) The licensee shall maintain records of malfunctions, failures, downtime, and any other similar change in operation of air pollution control systems or the emissions unit itself that would affect emission and that is not consistent with the terms and conditions of the air emission license. The licensee shall notify the Department within two (2) days or the next state working day, whichever is later, of such occasions where such changes result in an increase of emissions. The licensee shall report all excess emissions in the units of the applicable emission limitation. [MEDEP Chapter 115]
- (15) Upon written request from the Department, the licensee shall establish and maintain such records, make such reports, install, use and maintain such monitoring equipment, sample such emissions (in accordance with such methods, at such locations, at such intervals, and in such a manner as the Department shall prescribe), and provide other information as the Department may reasonably require to determine the licensee's compliance status. [MEDEP Chapter 115]

SPECIFIC CONDITIONS

- (16) Boilers H-1, H-2, P-1, P-2, G-1, G-2, C-1, and C-2
 - A. Total fuel use for the Boilers shall not exceed 600,000 gal/yr of #2 fuel oil. Compliance shall be demonstrated by fuel records from the supplier documenting the quantity and type of fuel delivered. Records of annual fuel use shall be kept on a 12- month rolling total basis. [MEDEP Chapter 115, BACT]

B. Emissions shall not exceed the following: [MEDEP Chapter 115, Chapter 103, BACT]

Equipment		PM	PM ₁₀	SO ₂	NO _x	CO	VOC
Boiler H-1	lb/MMBtu	0.08	-	-	-	-	-
	lb/hr	0.82	0.82	5.14	1.46	0.36	0.04
Boiler H-2	lb/MMBtu	0.08	-	-	-	-	-
	lb/hr	0.82	0.82	5.14	1.46	0.36	0.04
Boiler P-1	lb/MMBtu	0.08	-	-	-	-	-
	lb/hr	0.65	0.65	4.08	1.16	0.29	0.03
Boiler P-2	lb/MMBtu	0.08	-	-	-	-	-
	lb/hr	0.65	0.65	4.08	1.16	0.29	0.03
Boiler G-1	lb/MMBtu	0.08	-	-	-	-	-
	lb/hr	1.13	1.13	7.10	2.01	0.50	0.06
Boiler G-2	lb/MMBtu	0.08	-	-	-	-	-
	lb/hr	1.13	1.13	7.10	2.01	0.50	0.06
Boiler C-1	lb/hr	0.18	0.18	1.11	0.31	0.08	0.01
Boiler C-2	lb/hr	0.18	0.18	1.11	0.31	0.08	0.01

C. Visible emissions.

Visible emissions from the boilers shall not exceed 10% opacity on a 6 minute block average, except for no more than one (1), six (6) minute block average in a continuous 3 hour period. [MEDEP Chapter 101, BACT]

(17) **New Source Performance Standards for Dc Boilers**

Boilers H-1 and H-2 are subject to Federal New Source Performance Standards, Subpart Dc. Husson shall comply with all requirements of 40 CFR Part 60, Subpart Dc including, but not limited to, the following:

- A. Husson shall submit notification to EPA and the Department of the date of construction, anticipated start-up, and actual start-up. This notification shall include the design heat input capacity of the boilers and the type of fuel to be combusted.
- B. Husson shall perform and submit to EPA and the Department an initial performance test within 30 days after achieving the maximum production rate at which the facility will be operated but not later than 180 days after the initial start-up of the facility. The performance test shall consist of fuel supplier certification of the sulfur content of the fuel fired in Boilers H-1 and H-2. The fuel supplier certification must contain the name of the oil supplier

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and a statement from the oil supplier that the oil complies with ASTM specifications for #2 fuel oil.

- C. Husson shall record and maintain records of the amounts of each fuel combusted during each day.
- D. Husson shall submit to EPA and the Department semi-annual reports. These reports shall include the calendar dates covered in the reporting period and records of fuel supplier certifications. The semi-annual reports are due within 30 days of the end of each 6-month period.
- E. The following address for EPA shall be used for any reports or notifications required to be copied to them:

Compliance Clerk
USEPA Region 1
1 Congress Street
Suite 1100
Boston, MA 02114-2023

- (18) Husson shall notify the Department within 48 hours and submit a report to the Department on a quarterly basis if a malfunction or breakdown in any component causes a violation of any emission standard (Title 38 MRSA §605).

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(19) **Payment of Annual License Fee**

Husson shall pay the annual air emission license fee within 30 days of **April 30th** of each year. Pursuant to 38 MRSA §353-A, failure to pay this annual fee in the stated timeframe is sufficient grounds for revocation of the license under 38 MRSA §341-D, subsection 3.

DONE AND DATED IN AUGUSTA, MAINE THIS DAY OF 2007.

DEPARTMENT OF ENVIRONMENTAL PROTECTION

BY: _____
DAVID P. LITTELL, COMMISSIONER

The term of this license shall be five (5) years from the signature date above.

PLEASE NOTE ATTACHED SHEET FOR GUIDANCE ON APPEAL PROCEDURES

Date of initial receipt of application: 5/3/2005

Date of application acceptance: 5/24/2005

Date filed with the Board of Environmental Protection: _____

This Order prepared by Jonathan Voisine, Bureau of Air Quality